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AN UNDESCRIBED AGAVE FROM ARIZONA.

BY J. W. TOUMEY.

AGAVE TRELEASII, n. sp. — An acaulescent perennial with short root-stock and fleshy-fibrous roots; leaves 20 to 40 cm. long, 15 to 25 mm. broad, convex on lower and nearly flat on upper side; terminal spine horny, brownish, 12 to 19 mm. long, terete or slightly flattened and grooved on upper side; margin at base membranous (never serrulate), remainder filiferous with several fragile white fibers, not marking with white lines the adjoining leaves in separating in the bud as in allied species; scape 18 to 25 dm. high with moderately slender bracts; inflorescence subspicate; flowers usually in twos, sometimes from three to six, yellow, 35 to 50 mm. long and a third to a fourth as wide; perianth lobes short-linear to obovate, curved inward at the apex and on the sides; filaments inserted much above the middle of the tube; ovary twice as long as broad; fruit unknown. — Type specimens in herb. J. W. Toumey. Living co-types in succulent garden University of Arizona; Missouri Botanical Garden, St. Louis; and in garden Department of Agriculture, Washington, D. C.

This well marked species of the Filiferae group of *Agave* grows on the rocky, southern slopes of the Santa Catalina Mountains in southern Arizona, being found in particular abundance in the type locality on the mountain known as Castle Rock, where two plants were collected by the writer in December, 1896, and planted in the succulent garden at the University of Arizona. These plants have produced numerous offsets and one bloomed in the summer of 1899. Instead of sending up a stipe from the center of the plant, several lateral stipes were produced as offsets, although the central bud was uninjured. These stipes were without leaves at the base, but appeared above the ground as naked stalks sometimes a foot or more from the plant.

The species appears to be most nearly related to *Agave Schottii* but differs from it in many particulars. It is a larger plant in every way, the leaves are nearly twice as

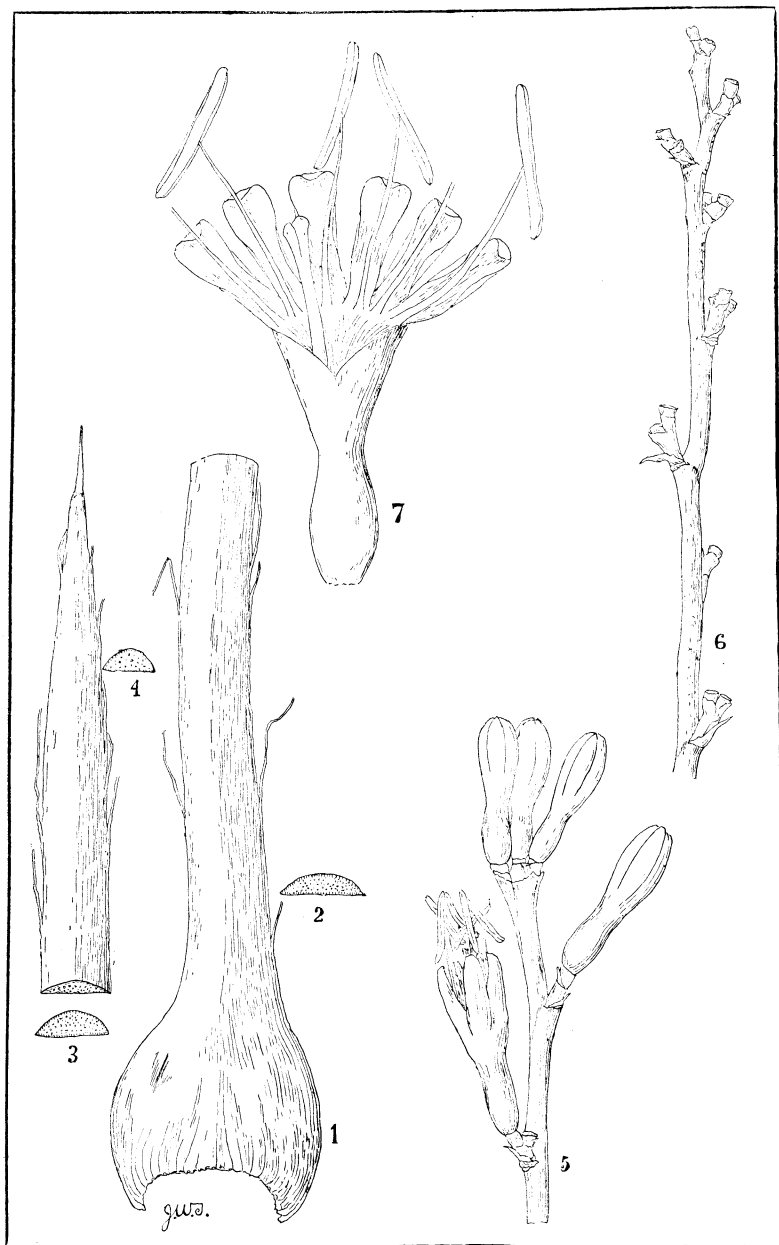
broad, it is deeper green and without markings left by adjoining leaves. The flowers are larger and the stamens are inserted toward the upper part of the tube.

This species, like *Agave Schottii* and *A. Lechuguilla*, has the leaves usually turned to one side. It is one of the Amole plants used by the Mexicans and Indians of the region as a substitute for soap. It grows with *Agave Schottii* at an elevation of about 6,500 feet. I take pleasure in naming this interesting succulent in honor of Dr. Wm. Trelease, Director of the Missouri Botanical Garden.

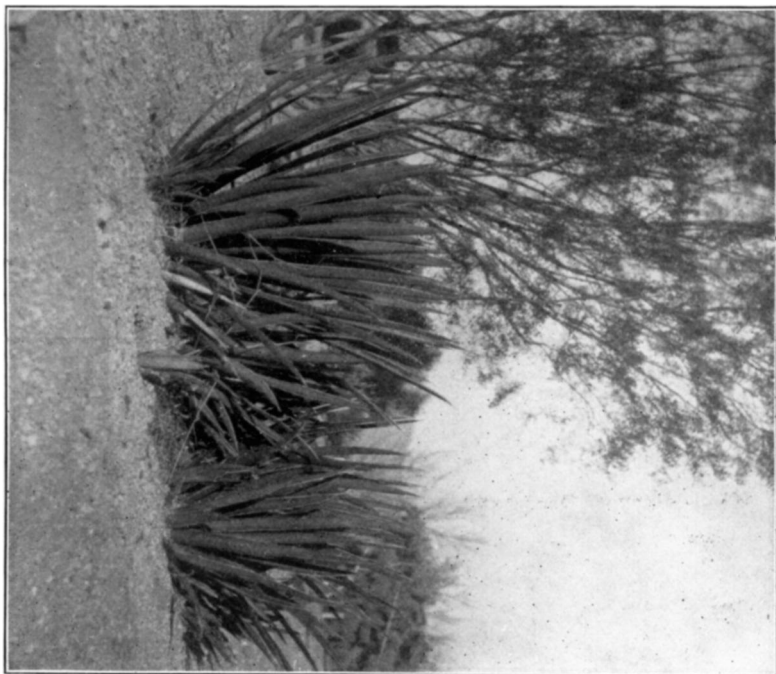
EXPLANATION OF PLATES.

Plate 32, *Agave Treleasei*. — 1, Medium-sized leaf of mature plant, $\times \frac{2}{3}$; 2, 3, 4, transverse sections of leaf, $\times \frac{2}{3}$; 5, terminal portion of inflorescence, $\times \frac{2}{3}$; 6, terminal portion of scape with flowers removed, $\times \frac{2}{3}$; 7, flower partially split open, showing the insertion of the filaments, $\times 1\frac{1}{2}$.

Plate 33, *Agave Treleasei*. — 1, Group of plants in the foreground, the short scape arising as an offset from a mature plant. (Beyond and at the right is a group of *A. Schottii*). 2, Group of plants showing the filiferous leaf-margins and numerous offsets.



AGAVE TRELEASEI.



AGAVE TRELEASII.